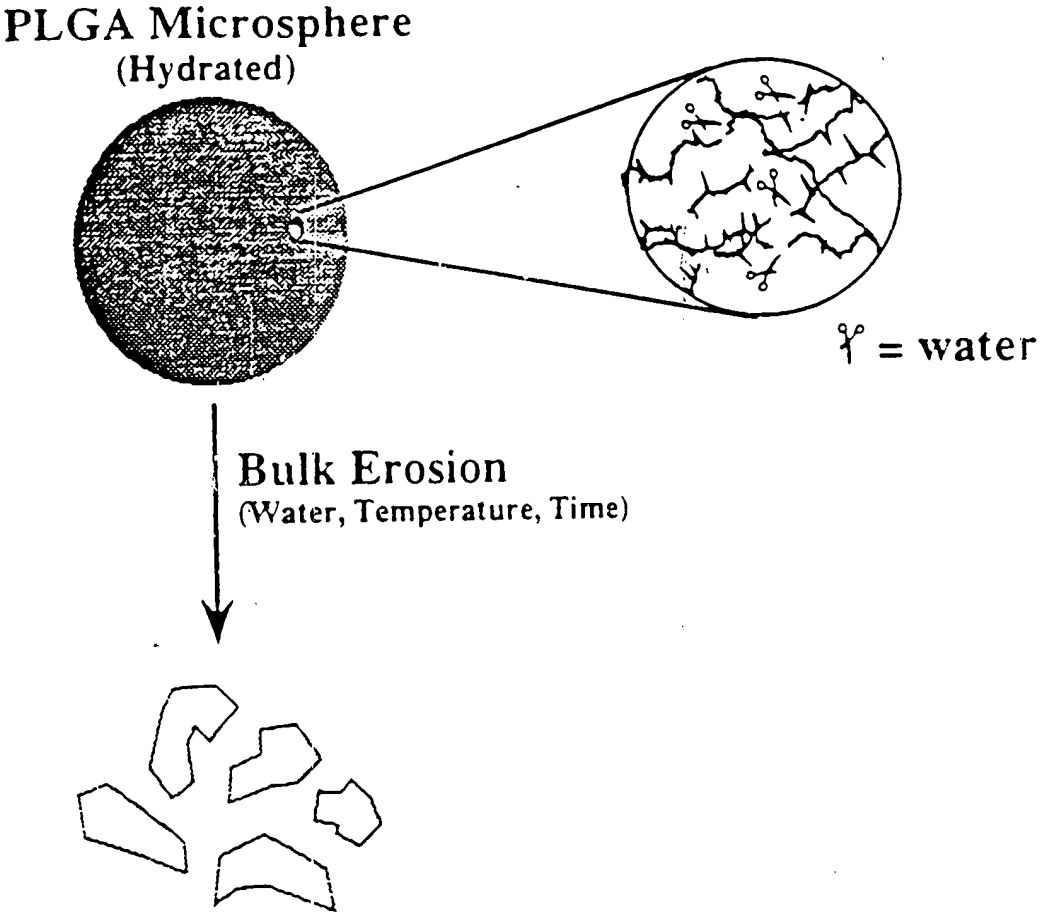
PLGA Microsphere
(Hydrated)
= water
Bulk Erosion
(Water, Temperature, Time)

Figure 1

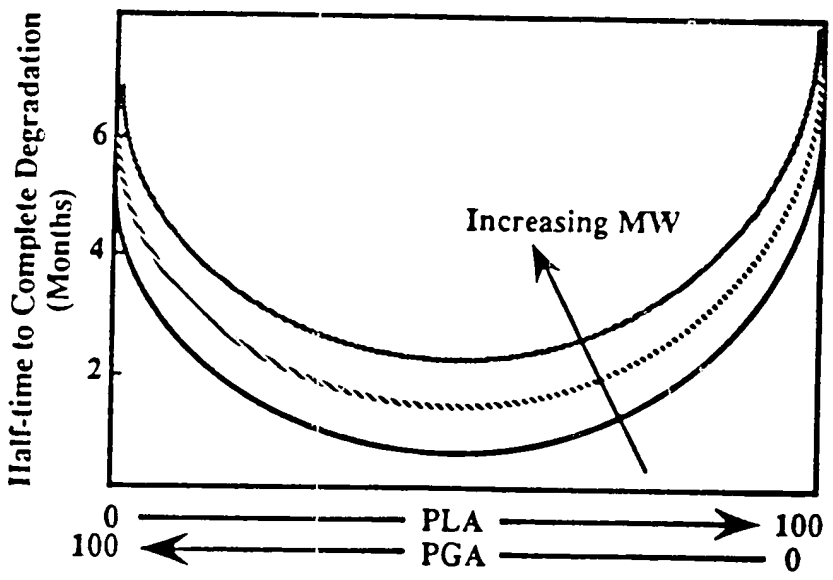
Half-time to Complete Degradation (Months)
6
4
2
Increasing MW
0
PLA
100
100
PGA
0

Figure 2

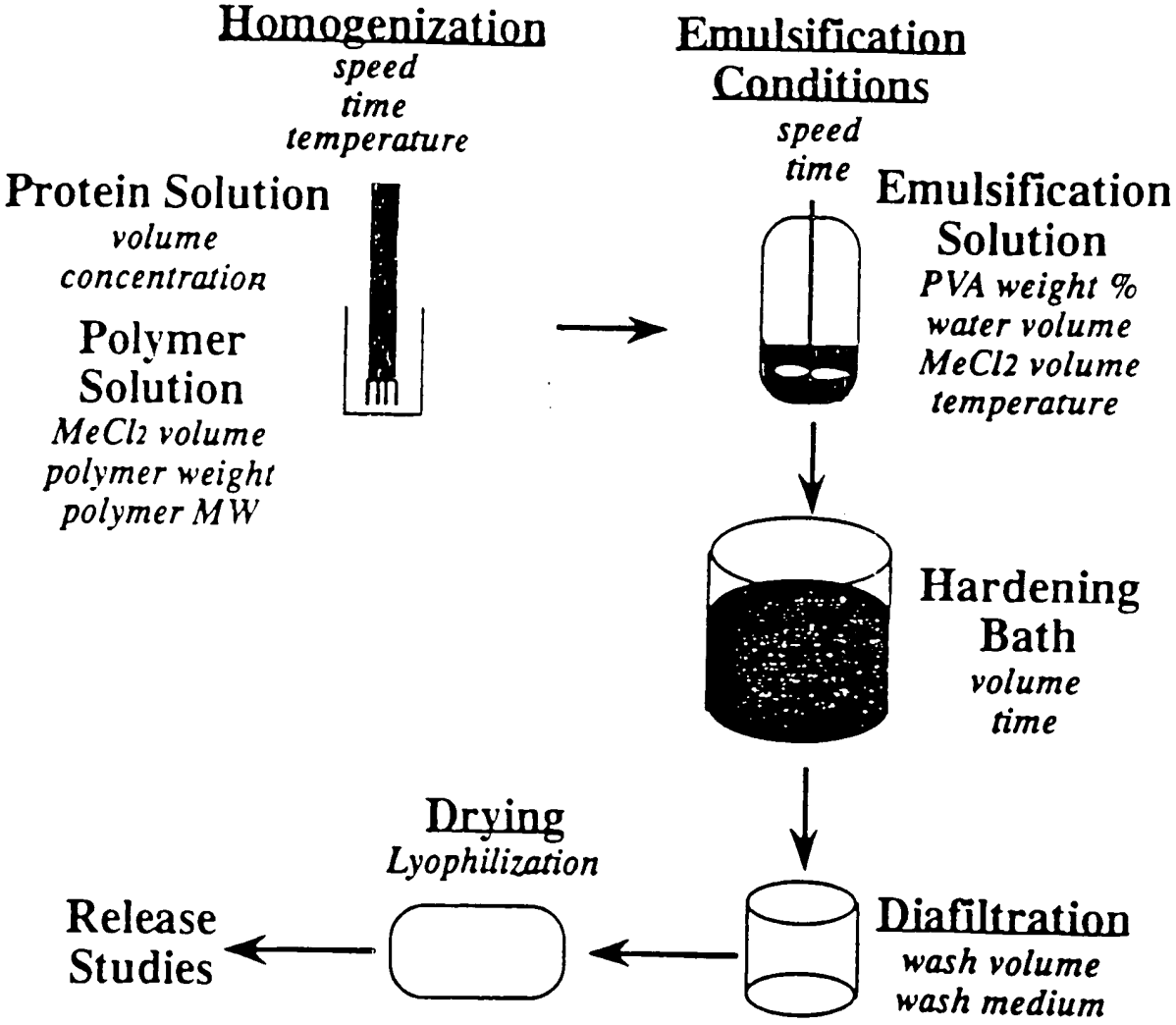
Homogenization
speed
time
temperature
Emulsification Conditions
speed
time
Protein Solution
volume
concentration
Polymer Solution
MeCl2 volume
polymer weight
polymer MW
Emulsification Solution
PVA weight %
water volume
MeCl2 volume
temperature
Hardening Bath
volume
time
Drying
Lyophilization
Release Studies
Diafiltration
wash volume
wash medium

Figure 3

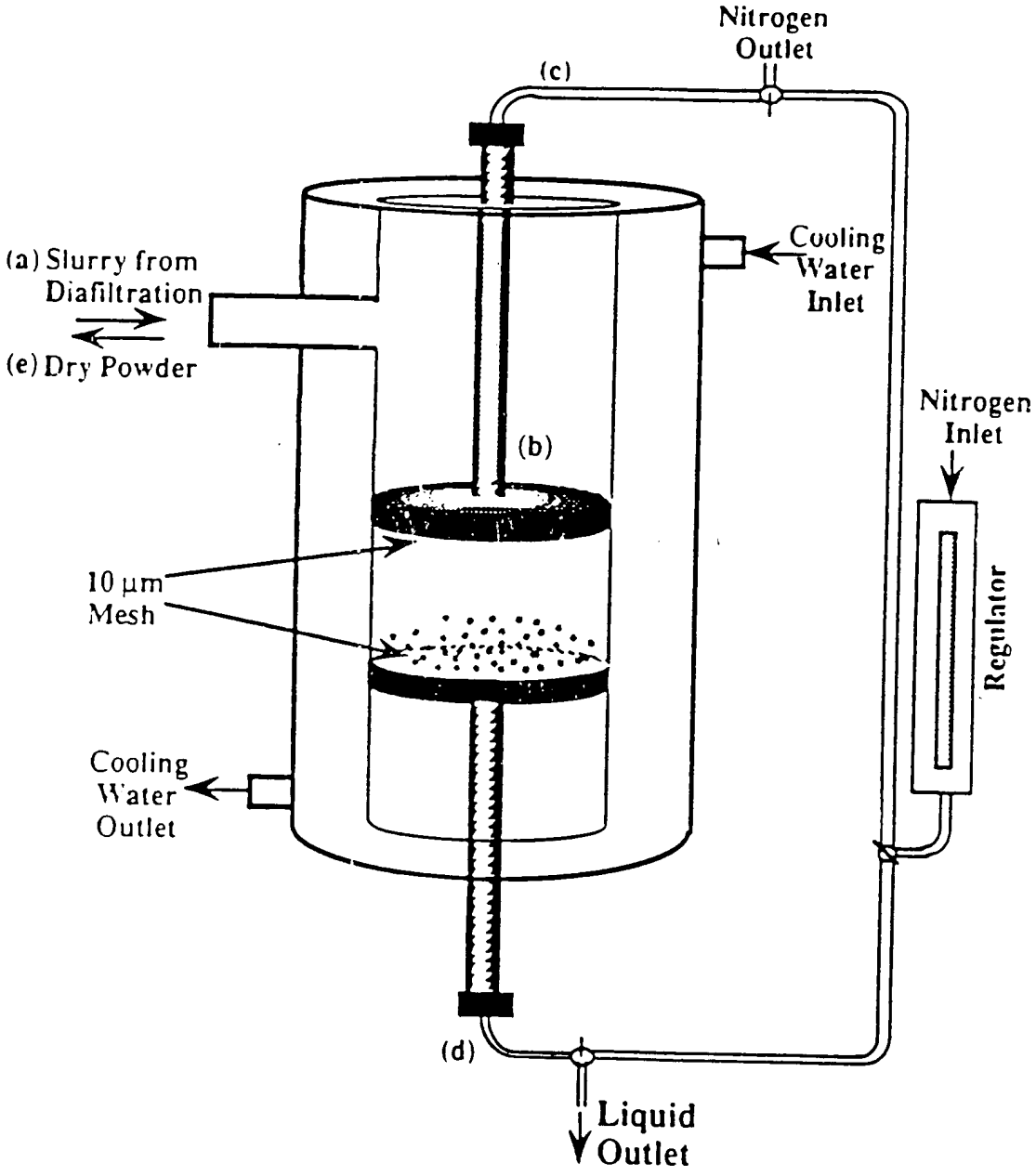
Nitrogen
Outlet
(c)
(a) Slurry from
Diafiltration
(e) Dry Powder
Cooling
Water
Inlet
Nitrogen
Inlet
(b)
10 μm
Mesh
Regulator
Cooling
Water
Outlet
(d)
Liquid
Outlet

Figure 4

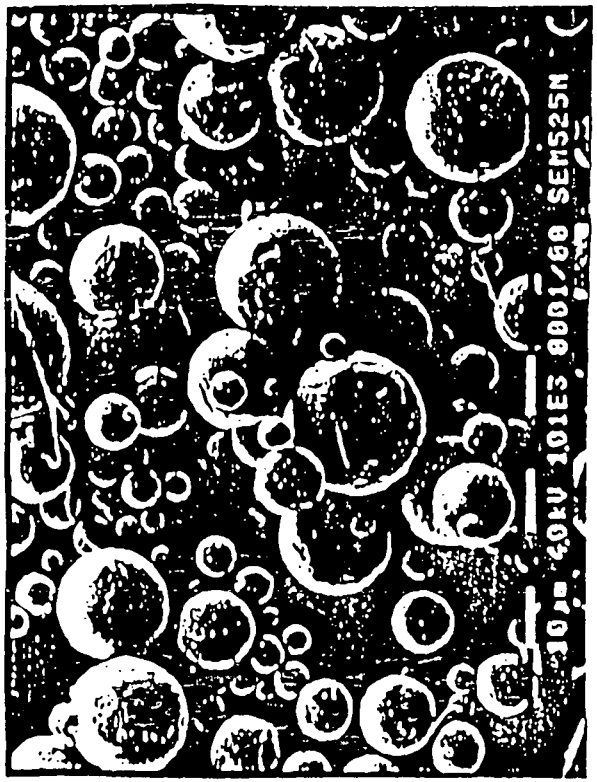

Figure 5

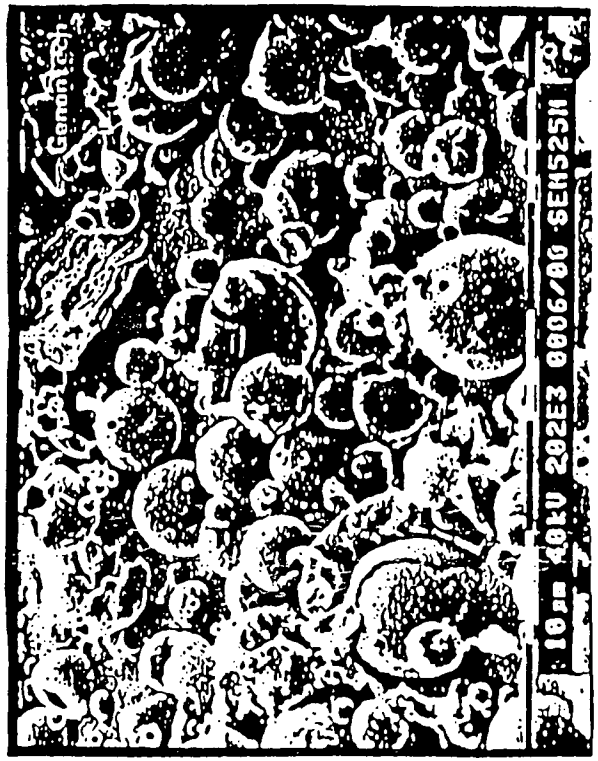

Figure 6

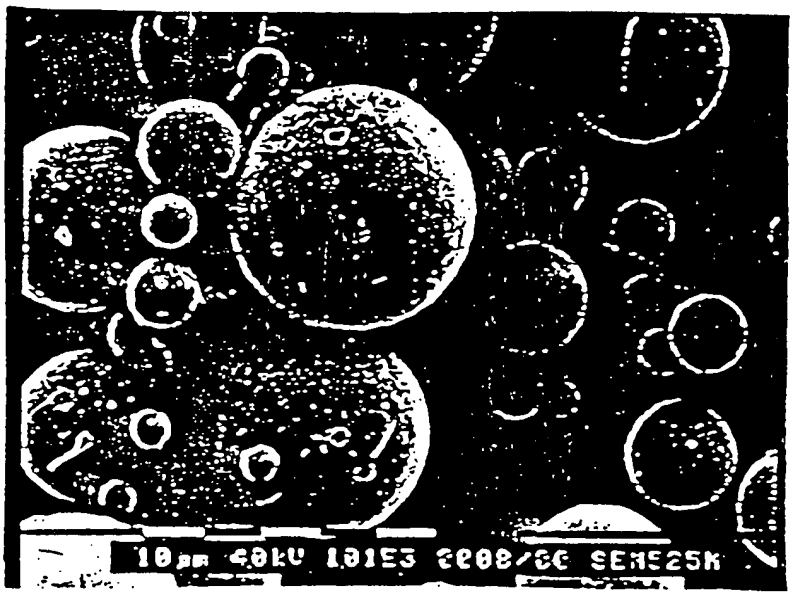

Figure 7

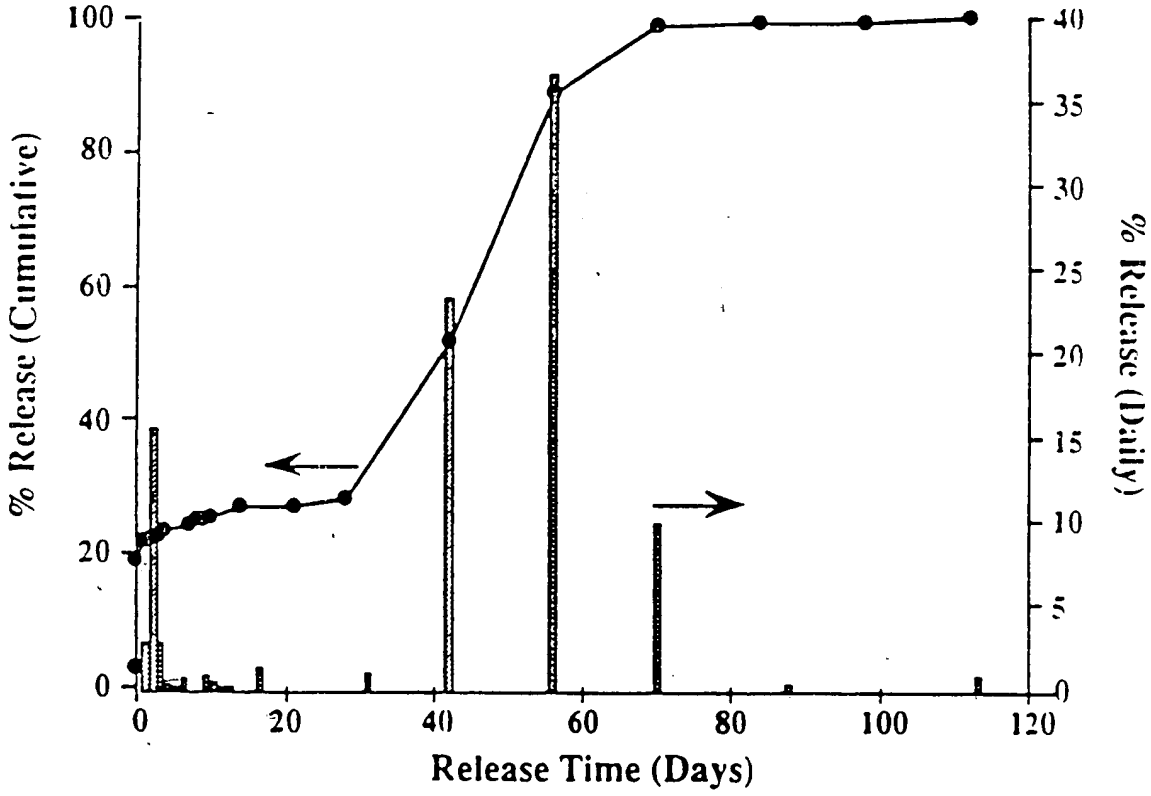
% Release (Cumulative)
% Release (Daily)
Release Time (Days)
0
20
40
60
80
100
120
0
5
10
15
20
25
30
35
40

Figure 8

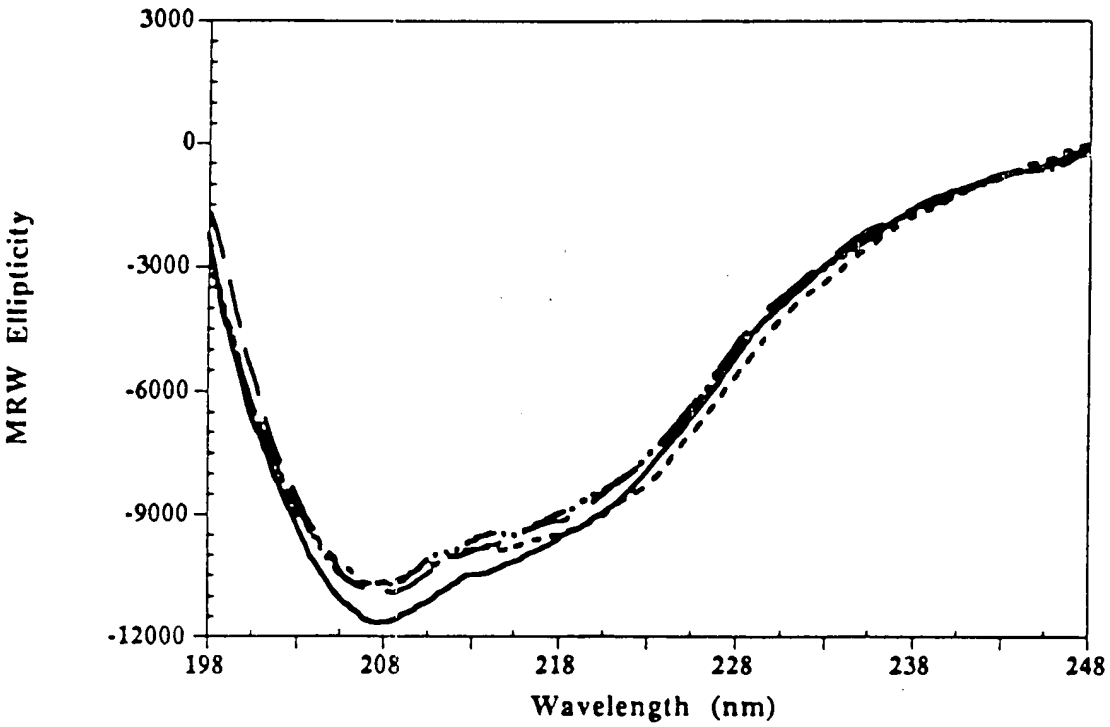
3000
0
-3000
-6000
-9000
-12000
MRW Ellipticity
198
208
218
228
238
248
Wavelength (nm)

Figure 9a

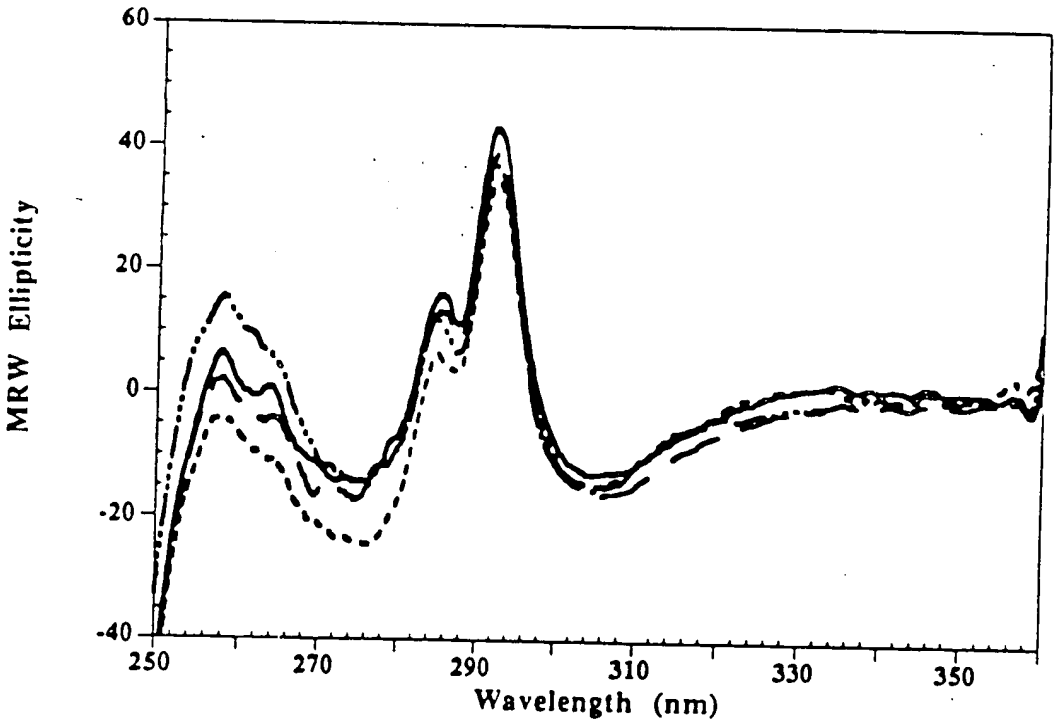
60
40
20
0
-20
-40
MRW Ellipticity
250
270
290
310
330
350
Wavelength (nm)

Figure 9b

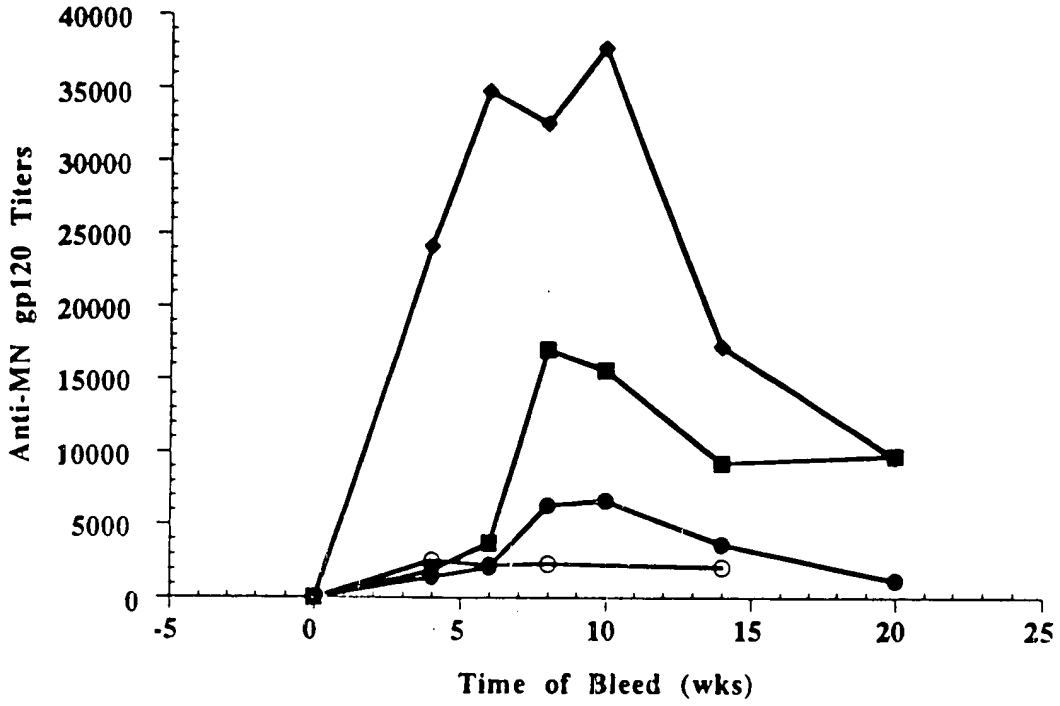
40000
35000
30000
25000
20000
15000
10000
5000
0
Anti-MN gp120 Titers
-5
0
5
10
15
20
25
Time of Bleed (wks)

Figure 10

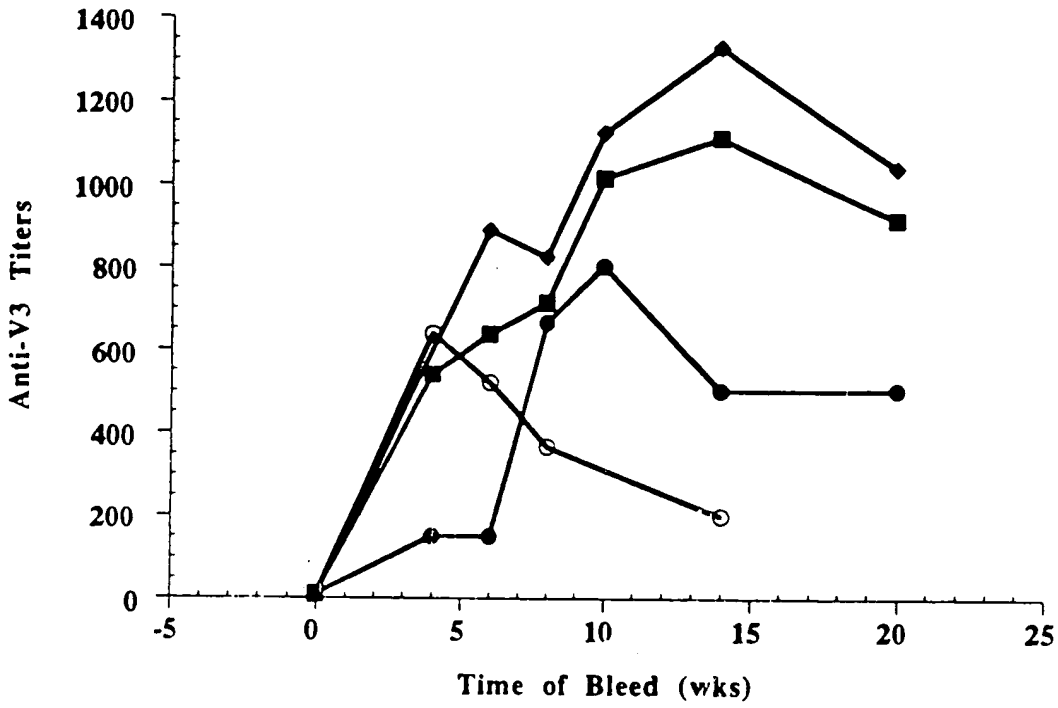
1400
1200
1000
800
600
400
200
0
Anti-V3 Titers
-5
0
5
10
15
20
25
Time of Bleed (wks)

Figure 11

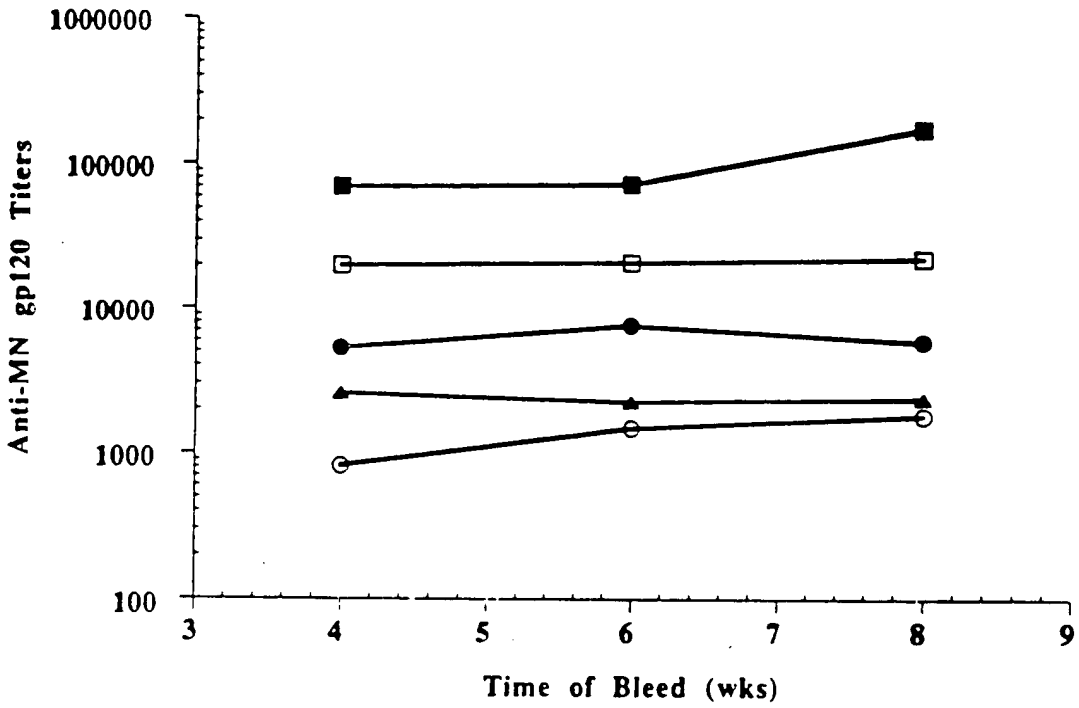
1000000
100000
10000
1000
100
Anti-MN gp120 Titers
3
4
5
6
7
8
9
Time of Bleed (wks)

Figure 12

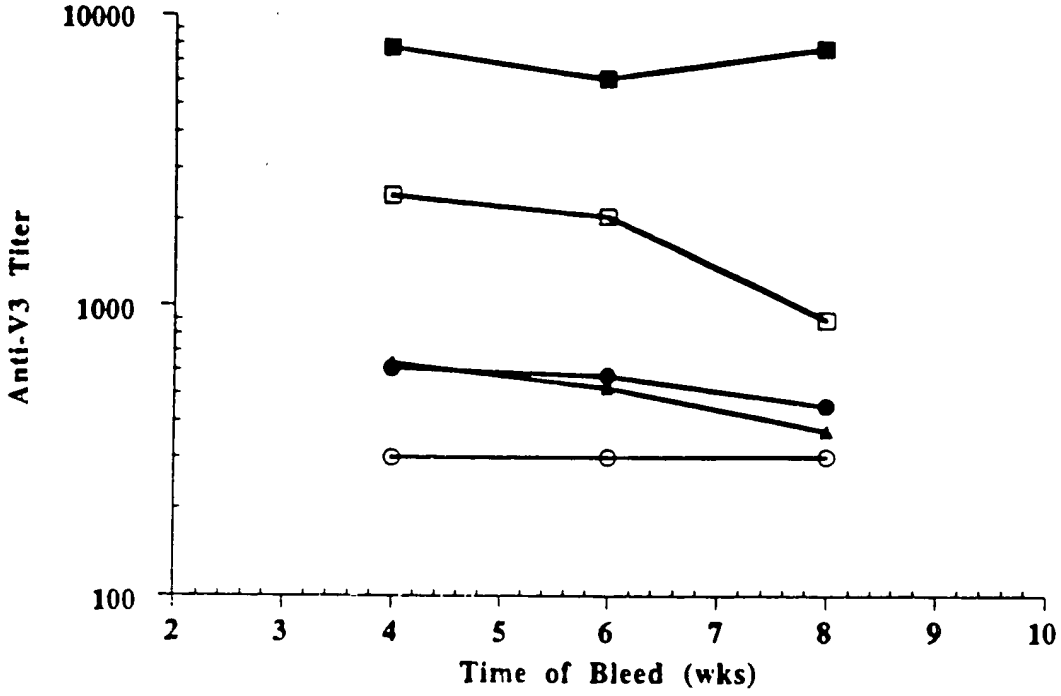

Figure 13